Economic Impact Analysis Summary

Connect Southeast Michigan Transit Plan

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Prepared for:

RTA REGIONAL TRANSIT AUTHORITY OF SOUTHEAST MICHIGAN

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Summary Compiled by: HNTB Corporation

2018 Economic Impacts of Transit Investment Summary

To estimate the economic impact of the implementation of the proposed *Connect Southeast Michigan Plan*, the Regional Transit Authority of Southeast Michigan (RTA) requested that HNTB Michigan, Inc. work with the Michigan Department of Transportation (MDOT) to analyze the proposed impacts of the transit plan with the regional economic model that MDOT uses to analyze their own infrastructure investments.

The focus of this analysis is to identify economic benefit from investment spending on transit service in Southeast Michigan by the Regional Transit Authority (RTA) including the following five study areas: Macomb County, Oakland County, Washtenaw County, City of Detroit, and Rest of Wayne County (excluding City of Detroit).

Analysis Approach

The economic impact of transit can be measured in several different ways;this study takes the most conservative approach and conducts an Economic Impact Assessment (EIA) based on transit spending only. The Regional Economic Models, Inc. (REMI) model used to analyze transit spending effects relies on policy variables selected through the REMI, TranSight regional modeling system. The Michigan 84-Regional model, Version 3.7.6, (Build 4056) was used for this particular study.

The REMI model was founded in 1980 for the purpose of developing regional forecasting and policy analysis models to inform and improve the quality of public policy decisions. Details on REMI model, including its history, products, wide list of users, and examples of applications, can be found on the REMI website at http://www.remi.com.

Economic Impact of Transit Spending

The section presents results using the REMI model outputs and the financial information provided by HNTB Michigan, Inc. for a period of 20 years from 2019 to 2038. The region wide impacts (RTA study area) of $5.4 billion (2019$) in total transit capital and operation & maintenance spending for the next 20 years reflect the following economic benefits on employment, gross regional product (GRP), and real personal income as well as the rate of return for transit investment.

The analysis measures the benefits on employment, gross regional product, and real personal income, as defined in **Table 1.** The model completed regional forecasting to determine the economic impacts using capital cost expenditures, operation and maintenance expenditures, and additional funding proposed for the 1.5 millage increase from 2018 – 2038 for a period of 20 years.

The impact analysis was first completed in 2016 for the *Regional Master Transit Plan*. In 2018, the numbers were updated to reflect changes in the system for the *Connect Southeast Michigan Plan*. The results of the 2018 analysis using the REMI model are detailed in **Table 2.**

TABLE 1 REMI OUTPUT DEFINITIONS

Total Employment	Employment comprises estimates of the number of jobs, full-time plus part-time, by place of work. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.

Gross Regional Product	The market value of goods and services produced by labor and property in the Region, regardless of nationality.
Real Personal Income	Personal Income divided by the PCE-Price Index (based on the current reference year for national-based price indices).

TABLE 2 ECONOMIC BENEFITS OF THE PROPOSED CONENCT SOUTHEAST MICHIGAN PLAN 20-YEAR TOTAL FOR ENTIRE RTA REGION

Category	Units	Totals
Total Employment	Individuals (Jobs)	62,000
Gross Regional Product	Billions of Current Dollars	$6.6 Billion
Real Personal Income	Billions of Current Dollars	$4.5 Billion

The REMI model can also breakout the economic impacts individual county. For the Connect Southeast Michigan plan horizon of 20 years, the estimated benefits by county are as:

Macomb County:

- 12,415 jobs supported, averaging 620 individual jobs annually over 20 years
- Approximately $37 million (in 2019 dollars) added in gross regional product
- Approximately $28 million (in 2019 dollars) growth in real personal income
- Approximately $4.00 rate of return per dollar investment (based on national average)

Oakland County:

- 21,409 jobs supported, averaging 1,070 individual jobs annually over 20 years
- Approximately $102 million (in 2019 dollars) added in gross regional product
- Approximately $72 million (in 2019 dollars) growth in real personal income
- Approximately $4.00 rate of return per dollar investment (based on national average)

Washtenaw County

- 7,584 jobs supported, averaging 379 individual jobs over 20 years
- Approximately $20 million (In 2019 dollars) added in gross regional product
- Approximately $11 million (In 2019 dollars) growth in real personal income
- Approximately $4.00 rate of return per dollar investment (based on national average)

Wayne County

- 20,325 jobs supported, averaging 1,016 individual jobs over 20 years
- Approximately $87 million (in 2019 dollar) added in gross regional product
- Approximately $38 million (in 2019 dollar) growth in real personal income
- Approximately $4.00 rate of return per dollar investment (based on national average)

As documented in the 2016 MDOT report, normally MDOT would use the generally accepted methods for estimating travel efficiency gains and the resulting economic impacts of transportation investments for impact analysis. This would include estimating travel efficiencies using the transportation data reported from the travel demand model(s) as inputs into the economic model developed by REMI. Specifically, the travel demand model examines the transportation network, including planned improvements. In general, there are three following direct benefit categories that arise from transportation investments that can be quantified.

- Construction Impacts: Impacts resulting from the expenditures on local labor and materials in constructing the infrastructure or facility.
- Operations and Maintenance (O&M) Impacts: Impacts resulting from the expenditures on local labor and supplies to operate and maintain the facility upon completion.
- Travel Efficiencies: Benefits that accrue to facility users after completion.

In this analysis, there was no basis to determine what if any travel efficiencies might be derived. These additional benefits would be derived from possible reductions in vehicle hours travel (VHT) or vehicle miles traveled (VMT) that might occur based on increases in transit ridership. Estimation of economic impacts arising from travel efficiency gains requires converting output from a travel demand model, VHT and VMT for the Build/No-Build model runs, into economic variables, and change in ridership from expansion of services. As these efficiencies were not modeled, the outputs provided by MDOT assume no savings to show the possible impacts.

The analysis also does not assess productivity impacts such as travel and vehicle ownership cost savings for public transportation passengers and those switching from automobiles, leading to shifts in consumer spending or business impacts.